(a) transforming a host cell with the chimeric gene of Claim 4; and

(b) growing the transformed host cell produced in step (a) under conditions that are suitable for expression of the chimeric gene

wherein expression of the chimeric gene results in production of altered levels of a sulfate assimilation protein in the transformed host cell.

18. (new) A nucleic acid fragment encoding all or a substantial portion of an amino acid sequence encoding a sulfate assimilation protein, obtained by a method comprising:

(a) probing a cDNA or genomic library with the isolated nucleic acid fragment of Claim 1;

(b) identifying a DNA clone that hybridizes with the isolated nucleic acid fragment of Claim 1;

(c) isolating the DNA clone identified in step (b); and

(d) sequencing a cDNA or genomic fragment that comprises the clone isolated in step (c) to obtain a sequenced nucleic acid fragment,

wherein the sequenced nucleic acid fragment of step (d) encodes all or a substantial portion of the amino acid sequence encoding a sulfate assimilation protein.

19. (new) A nucleic acid fragment encoding all or a substantial portion of an amino acid sequence encoding a sulfate assimilation protein, obtained by a method comprising:

(a) synthesizing an oligonucleotide primer corresponding to a portion of the sequence set forth in SEQ ID NO:3; and

(b) amplifying a cDNA insert present in a cloning vector using the oligonucleotide primer of step (a) and a primer representing sequences of the cloning vector to obtain an amplified nucleic acid fragment,

wherein the amplified nucleic acid fragment of step (b) encodes a substantial portion of an amino acid sequence encoding a sulfate assimilation protein.